

PATENT  
0796/71303

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants : Mark Hornung, et al.  
Serial No. : Not yet assigned  
Filed : Herewith  
For : DEVICE FOR MEASURING THE FLOW OF A GAS OR A  
LIQUID IN A BYPASS  
Group : Unknown  
Examiner : Unknown

1185 Avenue of the Americas  
New York, New York 10036  
(212) 278-0400  
November 20, 2003

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

As a means of complying with the duty of disclosure set forth in 37 CFR 1.56 and in keeping with the guidelines of 37 CFR 1.98, Applicant hereby submits information thought to be relevant to the above-identified application. Also submitted herewith is a completed form PTO-1449. The cited documents are:

|                 |                   |
|-----------------|-------------------|
| US 2003/0115952 | June 26, 2003     |
| US 2002/0078744 | June 27, 2002     |
| US 6,425,414    | July 30, 2002     |
| US 6,351,390    | February 26, 2002 |
| US 5,750,892    | May 12, 1998      |
| US 5,533,412    | July 9, 1996      |
| US 5,404,753    | April 11, 1995    |
| US 5,062,446    | November 5, 1991  |
| US 4,829,818    | May 16, 1989      |
| US 4,783,996    | November 15, 1988 |
| US 4,677,850    | July 7, 1987      |
| US 4,672,997    | June 16, 1987     |
| DE 101 29 300   | June 23, 2000     |
| DE 195 11 687   | October 2, 1995   |
| GB 214 24 37    | January 16, 1983  |
| EP 089 08 28    | January 13, 1999  |
| EP 055 29 16    | July 28, 1993     |
| WO 01 987 36    | December 27, 2001 |
| WO 97 265 09    | July 24, 1997     |
| WO 96 037 21    | February 8, 1996  |

F. Mayer, et al., (1996) "Scaling of Thermal CMOS Gas Flow Microsensors: Experiment and Simulation", Proc. IEEE Micro Electro Mechanical Systems, (IEEE, 1996): 116-121;

M. Ashauer, et al. (1998) "Thermal Flow Sensor for Liquids and Gases", Proc. IEEE Micro Electro Mechanical Systems, (IEEE, 1998):351-355.

These documents are listed on the attached from PTO-1449, and a copy of each is enclosed.

It is requested that the Examiner enter the cited documents in the file of the application and consider them under Rule 56.

We are advised that WO 01/98736 contains a subset of the information in DE 101 29 300 and is therefore redundant. In view of the partial translation, submitted herewith, of the former, we are submitting no translation of the latter.

PATENT  
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In the absence of more pertinent prior art, the application is in condition for allowance;  
favorable action is respectfully solicited.

No fee is believed to be due. However, the Patent Office is authorized to charge any fee or  
credit any overpayment to our deposit account No. 03-3125. A copy of this sheet is enclosed.

Respectfully submitted,  
COOPER & DUNHAM LLP

A handwritten signature in cursive script, appearing to read "Donald S. Dowden".

Donald S. Dowden  
Reg. No. 20,701

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IN A BYPASS  
Priority Date  
Claimed : December 23, 2002  
Group : Unknown  
Examiner : Unknown

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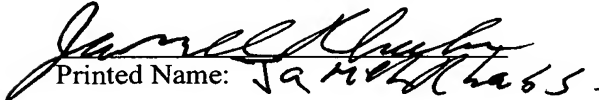
Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

SIR:


EXPRESS MAIL CERTIFICATE OF MAILING  
FOR ABOVE-IDENTIFIED APPLICATION

"Express Mail" mailing label number: EV325702303US  
Date of Deposit: November 20, 2003

I hereby certify that the following documents are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to the Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, Transmittal Letter, in triplicate; Certified copy of Swiss patent application CH-2205/02 filed 23 December 2002; 13-page specification including 1-page abstract and 2 sheets of formal drawings (Figs. 1-4); Verified Statement Claiming Small Entity Status; Information Disclosure Statement; Form PTO 1449 and 22 references; Declaration and Power of Attorney; Form PTO-1595 and Assignment; Check in the amount of \$425.00; and Return Postcard.

  
Printed Name: James M. Hughes

Respectfully submitted,

  
Donald S. Dowden  
Registration No. 20,701

| Form PTO-1449                                                                                                                                                                                                                             |    | U.S. Department of Commerce<br>Patent and Trademark Office |                 |   |   | Atty. Docket No.<br><b>0796/71303</b>     |   | Serial No.<br><b>Unknown</b> |   |                        |                  |       |          |                            |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------------------------|-----------------|---|---|-------------------------------------------|---|------------------------------|---|------------------------|------------------|-------|----------|----------------------------|----|
| LIST OF PRIOR ART CITED BY APPLICANT<br>(Use several sheets if necessary)                                                                                                                                                                 |    |                                                            |                 |   |   | Applicants<br><b>Mark Hornung, et al.</b> |   |                              |   |                        |                  |       |          |                            |    |
|                                                                                                                                                                                                                                           |    |                                                            |                 |   |   | Filing Date<br><b>Herewith</b>            |   | Group<br><b>Unknown</b>      |   |                        |                  |       |          |                            |    |
| <b>U.S. PATENT DOCUMENTS</b>                                                                                                                                                                                                              |    |                                                            |                 |   |   |                                           |   |                              |   |                        |                  |       |          |                            |    |
| Examiner Initial                                                                                                                                                                                                                          |    |                                                            | Document Number |   |   |                                           |   |                              |   | Date                   | Name             | Class | Subclass | Filing Date if Appropriate |    |
|                                                                                                                                                                                                                                           | AA |                                                            | 0               | 1 | 1 | 5                                         | 9 | 5                            | 2 | 06/26/03               | Mayer et al.     | 73    | 204.26   |                            |    |
|                                                                                                                                                                                                                                           | AB |                                                            | 0               | 0 | 7 | 8                                         | 7 | 4                            | 4 | 06/27/02               | Gehman et al.    | 73    | 204.11   |                            |    |
|                                                                                                                                                                                                                                           | AC |                                                            | 6               | 4 | 2 | 5                                         | 4 | 1                            | 4 | 07/30/02               | Jorgensen et al. | 137   | 597      |                            |    |
|                                                                                                                                                                                                                                           | AD |                                                            | 6               | 3 | 5 | 1                                         | 3 | 9                            | 0 | 02/26/02               | Mayer et al.     | 361   | 760      |                            |    |
|                                                                                                                                                                                                                                           | AE |                                                            | 5               | 7 | 5 | 0                                         | 8 | 9                            | 2 | 05/12/98               | Huang et al.     | 73    | 202      |                            |    |
|                                                                                                                                                                                                                                           | AF |                                                            | 5               | 5 | 3 | 3                                         | 4 | 1                            | 2 | 07/09/96               | Jerman et al.    | 73    | 861.95   |                            |    |
|                                                                                                                                                                                                                                           | AG |                                                            | 5               | 4 | 0 | 4                                         | 7 | 5                            | 3 | 04/11/95               | Hecht et al.     | 73    | 204.22   |                            |    |
|                                                                                                                                                                                                                                           | AH |                                                            | 5               | 0 | 6 | 2                                         | 4 | 4                            | 6 | 11/5/91                | Anderson         | 137   | 468      |                            |    |
|                                                                                                                                                                                                                                           | AI |                                                            | 4               | 8 | 2 | 9                                         | 8 | 1                            | 8 | 05/16/89               | Bohrer           | 73    | 204.22   |                            |    |
|                                                                                                                                                                                                                                           | AJ |                                                            | 4               | 7 | 8 | 3                                         | 9 | 9                            | 6 | 11/15/88               | Ohta et al.      | 73    | 204.17   |                            |    |
|                                                                                                                                                                                                                                           | AK |                                                            | 4               | 6 | 7 | 7                                         | 8 | 5                            | 0 | 07/07/87               | Miura et al.     | 73    | 204      |                            |    |
|                                                                                                                                                                                                                                           | AL |                                                            | 4               | 6 | 7 | 2                                         | 9 | 9                            | 7 | 06/16/87               | Landis et al.    | 137   | 554      |                            |    |
| <b>FOREIGN PATENT DOCUMENTS</b>                                                                                                                                                                                                           |    |                                                            |                 |   |   |                                           |   |                              |   |                        |                  |       |          |                            |    |
|                                                                                                                                                                                                                                           |    |                                                            | Document Number |   |   |                                           |   |                              |   | Date                   | Country          | Class | Subclass | Translation                |    |
|                                                                                                                                                                                                                                           |    |                                                            |                 |   |   |                                           |   |                              |   |                        |                  |       |          | Yes                        | No |
|                                                                                                                                                                                                                                           |    | DE                                                         | 10              | 1 | 2 | 9                                         | 3 | 0                            | 0 | 02/07/02               | Germany          | G01F  | 5/00     | partial                    |    |
|                                                                                                                                                                                                                                           |    | DE                                                         | 19              | 5 | 1 | 1                                         | 6 | 8                            | 7 | 10/02/96               | Germany          | G01F  | 1/684    | partial                    |    |
|                                                                                                                                                                                                                                           |    | GB                                                         | 2               | 1 | 4 | 2                                         | 4 | 3                            | 7 | 01/16/85               | Great Britain    | G01F  | 1/68     |                            |    |
|                                                                                                                                                                                                                                           |    | EP                                                         | 0               | 8 | 9 | 0                                         | 8 | 2                            | 8 | 01/13/99               | Europe           | G01F  | 25/00    |                            |    |
|                                                                                                                                                                                                                                           |    | EP                                                         | 0               | 5 | 5 | 2                                         | 9 | 1                            | 6 | 07/28/93               | Europe           | A61B  | 5/087    |                            |    |
|                                                                                                                                                                                                                                           |    | WO                                                         | 0               | 1 | 9 | 8                                         | 7 | 3                            | 6 | 12/27/01               | PCT              | G01F  | 1/684    |                            |    |
|                                                                                                                                                                                                                                           |    | WO                                                         | 9               | 7 | 2 | 6                                         | 5 | 0                            | 9 | 07/24/97               | PCT              | G01F  | 5/00     |                            |    |
|                                                                                                                                                                                                                                           |    | WO                                                         | 9               | 6 | 0 | 3                                         | 7 | 2                            | 1 | 02/08/96               | PCT              | G07F  |          |                            |    |
| <b>OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>                                                                                                                                                             |    |                                                            |                 |   |   |                                           |   |                              |   |                        |                  |       |          |                            |    |
|                                                                                                                                                                                                                                           |    |                                                            |                 |   |   |                                           |   |                              |   |                        |                  |       |          |                            |    |
|                                                                                                                                                                                                                                           |    |                                                            |                 |   |   |                                           |   |                              |   |                        |                  |       |          |                            |    |
| <b>EXAMINER</b>                                                                                                                                                                                                                           |    |                                                            |                 |   |   |                                           |   |                              |   | <b>DATE CONSIDERED</b> |                  |       |          |                            |    |
| *EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant. |    |                                                            |                 |   |   |                                           |   |                              |   |                        |                  |       |          |                            |    |

|                                                                                                                                                                                                                                           |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------|-------|------------------------------|-------------------------------|
| Form PTO-1449                                                                                                                                                                                                                             |    | U.S. Department of Commerce<br>Patent and Trademark Office |                                                                                                                                                                       |                        | Atty. Docket No.<br><b>0796/71303</b>     |       | Serial No.<br><b>Unknown</b> |                               |
| LIST OF PRIOR ART CITED BY APPLICANT<br>(Use several sheets if necessary)                                                                                                                                                                 |    |                                                            |                                                                                                                                                                       |                        | Applicants<br><b>Mark Hornung, et al.</b> |       |                              |                               |
|                                                                                                                                                                                                                                           |    |                                                            |                                                                                                                                                                       |                        | Filing Date<br><b>Herewith</b>            |       | Group<br><b>Unknown</b>      |                               |
| <b>U.S. PATENT DOCUMENTS</b>                                                                                                                                                                                                              |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |
| Examiner<br>Initial                                                                                                                                                                                                                       |    |                                                            | Document Number                                                                                                                                                       | Date                   | Name                                      | Class | Subclass                     | Filing Date<br>if Appropriate |
|                                                                                                                                                                                                                                           |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |
|                                                                                                                                                                                                                                           |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |
|                                                                                                                                                                                                                                           |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |
| <b>FOREIGN PATENT DOCUMENTS</b>                                                                                                                                                                                                           |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |
|                                                                                                                                                                                                                                           |    |                                                            | Document Number                                                                                                                                                       | Date                   | Country                                   | Class | Subclass                     | Translation<br>Yes      No    |
|                                                                                                                                                                                                                                           |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |
|                                                                                                                                                                                                                                           |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |
|                                                                                                                                                                                                                                           |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |
|                                                                                                                                                                                                                                           |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |
| <b>OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>                                                                                                                                                             |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |
|                                                                                                                                                                                                                                           | AS |                                                            | F. Mayer, et al. (1996) "Scaling of Thermal CMOS Gas Flow Microsensors: Experiment and Simulation", Proc. IEEE Micro Electro Mechanical Systems, (IEEE, 1996):116-121 |                        |                                           |       |                              |                               |
|                                                                                                                                                                                                                                           |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |
|                                                                                                                                                                                                                                           | AT |                                                            | M. Ashauer, et al. (1998) "Thermal Flow Sensor for Liquids and Gases", Proc. IEEE Micro Electro Mechanical Systems, (IEEE, 1998):351-355                              |                        |                                           |       |                              |                               |
|                                                                                                                                                                                                                                           |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |
| <b>EXAMINER</b>                                                                                                                                                                                                                           |    |                                                            |                                                                                                                                                                       | <b>DATE CONSIDERED</b> |                                           |       |                              |                               |
| *EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant. |    |                                                            |                                                                                                                                                                       |                        |                                           |       |                              |                               |